TRAFFIC CONTROL SYSTEM
FOR LANE SHIFT WHERE RIGHT OR LEFT LANE
IS CLOSED AND THE OPPOSITE LANE IS CLOSED AHEAD

D-704-34A

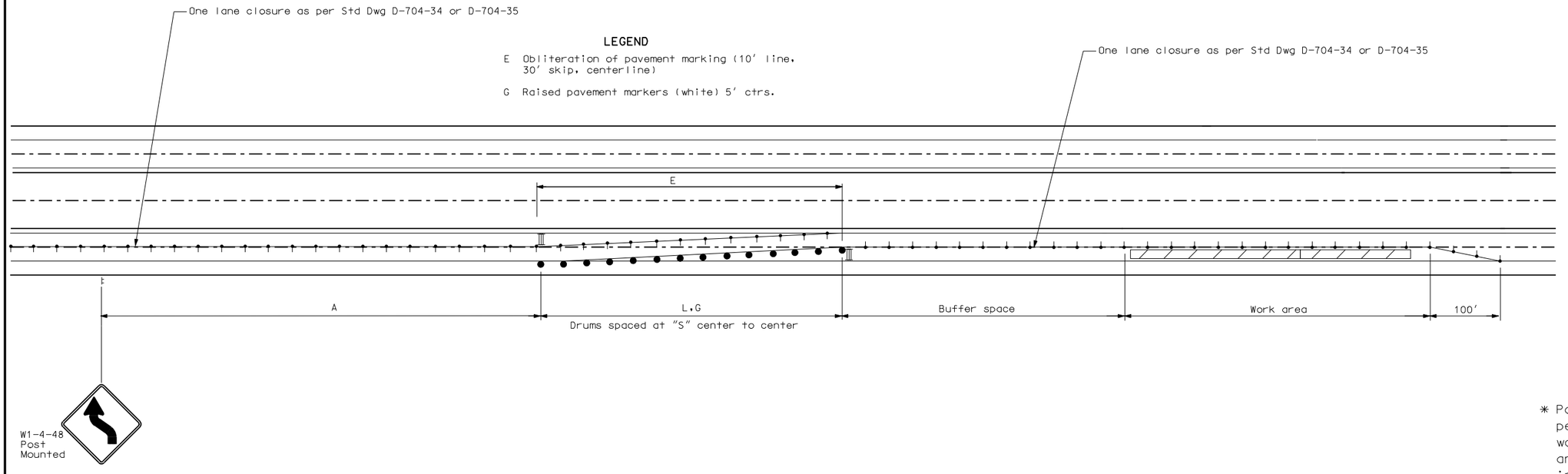
Notes
1. Variables
   S = Numerical value of, posted speed limit, or off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.
   W = Width of offset in feet.
   L = Taper length in feet. Speeds 40 mph or less $L=WS^2/60$. Speeds 45 mph or greater $L= WS$.
2. Barricade shown to be placed on roadway shall be on a moveable assembly. Sign to be mounted on barricades shall be mounted with the sign bottom on the top of the top barricade bar. sign shown to be placed on the roadway shall be placed on moveable assemblies.
3. Delineator drums, used for tapering traffic and for tangents shall be spaced as shown.
4. Sequencing Arrow Panels
   Panels should normally be placed at the beginning of the taper. Where shoulder width does not provide sufficient room, the panel should be moved closer to the work area so that it can be placed on the roadway surface.
   Type A shall be used on roadways with slow moving traffic speeds and low volume (25 mph and 750 ADT or less)
   Type B shall be used on roadways with moderate traffic speeds and volumes (40 mph and 5000 ADT or less)
   Type C shall be used on roadways with high traffic speeds and volumes (over 40 mph and 5000 ADT)
5. Existing speed limit signs within a reduced speed zone shall be covered.
6. Obliterated or covered pavement marking shall be paid for as Obliteration of Pavement Marking. The covering shall be approved by the Engineer.
7. The contractor has the option of using portable sign supports in lieu of post mounted sign as shown on the standard drawings as specified in section 704.03 C.
8. When placing the traffic control devices, speed reductions will be necessary. These reduced speed areas shall have the "Minimum Fee $80" sign placed below the speed limit sign.
9. Obliteration of pavement marking (10' line, 30' skip, centerline) and raised pavement markers are not necessary when the work area is 14 days or less.

TYPE III BARRICADES
2 Each

DELINEATOR DRUMS
14 Each

RAISED PAVEMENT MARKERS
(White) VARIES Each

OBLITERATION OF PAVEMENT MARKING
VARIES SF



Longitudinal Buffer Space	
*Speed (mph)	Length Min (feet)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

* Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

KEY
- Type I barricade
- Type II barricade
- Type III barricade
- Sign
- Delineator drum
- Tubular markers
- Work area
- Flagger
- Sequencing arrow panel
- Type A delineator or vertical panels back to back

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs Min. (ft)		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
04-24-08	
REVISIONS	
DATE	CHANGE
08-06-07	Major revisions

This document was originally issued and sealed by MARK S GAYDOS Registration Number PE- 4518 , on 08/06/07 and the original document is stored at the North Dakota Department of Transportation